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Communications.

SURGICAL CONTRIBUTIONS.

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Of Brooklyn, N. Y.

I.

Stricture of the Rectum.—Operation.—Death within Thirty-eight hours.—Autopsy.—Comments, etc.

This case concerned an elderly, but prematurely decrepit, feeble, and attenuated lady. For years she had suffered from constipation of the bowels, and been in constant need of aperients. During the last two years that complaint had become more intractable and painful, and a copious blennorrhœic discharge had been superadded, with casual loss of blood. For a long time she had not had properly formed passages, and in fact not been able to pass anything but fluids.

What the symptoms had already indicated, manual exploration disclosed, viz., a very close stricture about one inch and a half above the anus. The existing obstruction seemed to be of membranous texture; at any rate, there was less induration than might have been expected from the presumptive duration of the trouble. The stricture formed, as it were, a kind of perforated diaphragm, of sufficient closeness to effectually prevent solid passages, the parts being tender, the sphincter irritable, and the lining covered with muco-purulent secretion. There seemed to be no other cause for her early decay than the continuous drain upon her system by purgatives and morbid discharges from the gut.

The stricture constituted obviously but the lesser part of the malady; its removal was, however, of such importance as to admit of no delay. The operation, thus necessitated, was performed a few days later, in a very simple manner. Assisted by Drs. Whaley and Willers, the patient being under chloroform, I divided by superficial incisions the stricture, until I could easily pass the oiled finger and my dilator. However, dilation itself was not attempted. After having injected the rectum with warm water, in order to clear the same of fæces and blood, the patient was comfortably bedded.

A few hours afterward, the patient complained of great distress and pain in the abdomen, which was somewhat tender on touch. Since the reaction from chloroform, she had continually vomited and been very restless. Peritonitis had evidently set in from unknown causes. The prognosis was exceedingly dubious, from the previous condition of the patient; and the free use of opium per enemata proved unserviceable. The patient expired within thirty-eight hours after the operation.

Fortunately, an autopsy was conceded, which elicited the following morbid conditions: Firstly, a moderate inflammation of the peritoneum, centering about the hypogastric region. Secondly, a serous effusion of about one pint and a half within the abdominal cavity, emitting the unmistakeable odor of opium. Thirdly, the entire rectum surrounded by a fat layer not less than a third of an inch in thickness. The said fat layer terminated abruptly at the sigmoid flexure, and there all disease of the large intestine disappeared. About nine inches from the anus, in the antero-lateral aspect of the gut, there was a stellated perforation of sufficient size to pass an ordinary penholder from the abdominal cavity into the intestine. The calibre of the latter had been reduced to half its normal size, that is to say, to a diameter of not quite an inch, and the internal surface was covered with ulcerations, varying in size from that of a pin-head to that of a five-cent piece. Some of these ulcerations were very superficial, others penetrated the mucous membrane, still others went into and through the muscular coat, and a few of the largest ulcers reached to the peritoneal covering. The rest of the mucous membrane presented a gelatinous appearance, was thickened and softened.

Comments.

The cause of death was rendered transparent by the autopsy. The question arises, what produced the perforation? The operation itself had certainly nothing to do with the fatal termination of the case, for, be it remembered, that the stricture was in close proximity to the anus, and that

neither the knife (a blunt-pointed tenotome of Bouvier) nor the finger, nor the dilator, were introduced much beyond the stricture, and that neither of them had length enough to reach the seat of perforation. From the pathological condition of the rectum, it seems plausible to me that the perforation was effected by the hydraulic pressure of the first injection, and the odor of opium in the abdominal cavity seems to render this opinion conclusive.

The present case demonstrates pretty clearly the fact that the chief disease consisted of general ulceration of the mucous lining of the rectum, and that the stricture was a mere incidental complication. I believe that this is the rule, and by no means an exception. Hence, it follows that a removal of the stricture does not relieve the main trouble.

During the last few years, I have successively operated upon and treated twenty cases of stricture of the gut. I have, with the exception of the present case, in all succeeded in overcoming the mechanical obstructions by the same plan, but in none have I effected a cure. All the patients thus treated are still alive; some of them having improved in weight and appearance since the operation, but all of them still suffer more or less from muco-purulent discharges. There is scarcely any remedy recommended, which I have not tried, but found wanting. Cold and warm water; injections with mucilage, the acetate of lead, sulphates of zinc and copper, iodine, iron, and vegetable astringents, have equally disappointed me. Three of my patients had previously been infected with syphilis, and presented still some consecutive symptoms of that disease, but even the anti-syphilitic treatment made no impression upon the local trouble.

My literary researches in both pathological anatomy and surgery have satisfied me that the so-called simple or fibrous structures of the rectum have not come within the scope of scientific and practical investigation, and that we have yet to learn more about them. Prof. Gross admits candidly that he has seen but few cases of this class, and suspects that our ignorance of the same is perpetuated by one writer copying from the other. Under these circumstances a few suggestions will not be found out of place.

Some time ago, I introduced to the attention of the profession a new dilator, which will be remembered by the readers of this journal. It is constructed after the plan of Michelena's instrument for the stricture of the urethra, which possesses an eccentric action. Since then, I have learned that a similar instrument had been previously constructed by Armstrong. Inasmuch as I have never claimed originality of invention, I cannot be charged with plagiarism.

Those who have carefully considered the pathological condition of the rectum in the present instance, though perhaps an extreme case, will readily concede that the so-called rectal bougies are inefficient, inappropriate, and dangerous in their application, and infinitely inferior to eccentric dilators.

A few erratic articles on stricture of the rectum in English and German journals, and some hand-books on surgery, mention the fact that rectal strictures are often found to be complicated with fistula in ano. Some writers presume, and I myself have entertained the view, that these fistulous tracts are produced by the strictures. Consistent with this view, they ascribe to the rectum an hour-glass form, with a large superior bagging. More experience on the subject has convinced me that the idea is erroneous. It is correct that almost all strictures of the rectum are coupled with fistula in ano, with abscesses in the perinæum and about the fundament, and in one case I observed a recto-vaginal communication. It has appeared singular to me that the dividing of the sphincter and the operation of the stricture did but rarely succeed in permanently closing the fistula in ano. In one instance, previous to the operation there had been a large abscess in the immediate neighborhood of the anus, which was promptly and freely opened, and subsequently treated as fistula in ano. Since then, three more abscesses have formed at a more remote part of the fundament, whose openings, conjointly with the former one, have converted the anus into a complete cloaque, which is still discharging, and has been for the last eighteen months. It must, therefore, be inferred that these fistulæ and abscesses form, irrespective of the simultaneously or previously existing stricture of the rectum, and I believe that the anatomical specimen described is well calculated to throw light upon this subject. Here we find numerous ulcerations that perforate more or less perfectly the walls of the rectum. In the same ratio as the destructive process advances, nature surrounds the gut with an adventitious sheath of adipose tissue for protection. Not unlikely the passages influence the perforations to establish fistulous tracts downward and between the rectum and its adventitious tissue, which eventuate into fistulæ and abscesses at the fundament. This seems to be the rule, for I do not remember of ever having heard of spontaneous perforations into the abdo-

minal cavity. With this very mechanism rests the intractability of such cases.

As obscure as the pathology has been heretofore, as impenetrable is the causation. Some authors link the ulceration of the rectum with catarrhal inflammations and dysentery. I have not been able to establish that causal connection in one of my cases. During the war, many cases of chronic diarrhœa have come under my observation, yet I do not remember having seen one in which it had eventuated in fistulous tracts along the wall of the rectum. Rokitanski speaks of a strictly local follicular inflammation and ulceration of the rectum, the causes of which he does not distinctly state. That pathology underlies perhaps the cases in question, but we evidently know too little to prevent its destructive phases. This much is certain, that obstinate constipation of the bowels precedes the malady, and in return is increased thereby. The most surprising thing in these cases is their duration. Most of them last for years, and one had existed thirteen years when I took it in hand. The patients are, of course, materially weakened and attenuated thereby, but still not to such an extent as the amount of substantial loss in mucus, pus, and blood should lead us to expect.

Hospital Reports.

Jefferson Medical College, *December.*

Surgical Clinic of Prof. Gross.

Reported by W. W. Keen, Jr., M. D.

Nævus—Upper Lip.

Dec. 4th. Harriet C., æt. 12 months, had a congenital tumor on the upper lip, which was flat and small, but which has since grown rapidly. It is now of the size of a quarter of a dollar; thick and elevated, and somewhat everted. The skin is sound, but it is so vascular that it throbs under the finger perceptibly. It is of a purple color. It frequently breaks, and then bleeds quite profusely.

I operated by passing a double ligature through the centre, and ligating it firmly on both sides.

21st. A portion of the tumor having remained by slipping from the ligature, I operated on it a second time. It was only a small rim bordering the upper lip.

Cheiloplastic Operation.

Dec. 4th. Ellwood K., æt. 14. Five years ago was sick with typhoid fever, for nearly a year. Five weeks after he was taken sick the mercury began to show its effects on his lip, and now on the right side, involving both lips, but especially on the upper one is an opening, of the size of a 25 cent piece, surrounded by an indurated margin. I first pared off the indurated margin, and then took a flap from the cheek, laid it in place, and approximated completely the edges of the wound made by the removal of the flap. I gave him morphia, gr. ¼, dressed the wound by narrow adhesive strips, and pieces of lint, moistened by olive oil.

6th. Some little erysipelas appeared to-day, but it yielded readily to a good purge by magnes. citras, and the application of iodine, diluted to one-half with alcohol.

10th. It has almost entirely healed by the first intention.

17th. Went home, the flap having united by the first intention; the gap left by its removal by the second, and cicatrization there being almost complete.

28th. Entirely healed. The flap bulges out considerably, and the right corner of the mouth needs paring hereafter.

March 1st. The flap is much decreased in thickness, and is nearly natural at present. The lower cicatrix is, however, assuming a keloid appearance. The corner of the mouth has not yet been pared.

Keloid Tumor.

Dec. 7th. Wm. N. S., æt. 18. He had two years ago a carbuncle over the second rib, on the right side anteriorly. He has fever and a stinging pain, but his general health is good. The tumor is about 1½ inches long, and ½ an inch wide. It is of a reddish color, hard and movable.

I removed it by the knife, and dressed it by the wire suture and adhesive strips.

14th. Some of the sutures tore out, and it is healing by the granulating process at these points.

21st. Almost all cicatrized.

28th. Discharged healed.

Caries from and with Rheumatism.

Dec. 14th. Jacob L., æt. 32. More than a year ago the swelling in the right hand and wrist began in the forefinger, without any assignable cause. He never had an injury or syphilis. It began with pain in the joints and swelling, which has extended up to just above the wrist to a marked extent. He is a large plethoric German. His general health is good. He has no pain in the elbow or shoulder. The hand and wrist are painful in changeable weather, but still he generally sleeps well. There is motion laterally; complete flexion, but extension only to a straight line with the forearm. Anteriorly on the radial

side of the wrist there is an opening, the seat of a thin watery discharge. On probing, the probe passed well down, probably into the joint, but there was no dead bone felt.

I dieted him well, forbidding meat, liquors of all kinds, etc., kept him in the house, bled him freely, and gave—

℞. Pil. hydrarg.,
Ext. colocynth. comp.,
Pulv. jalapæ, āā gr. iv.
Ipecac., gr. ij. M.
every second day.

Also,

℞. Vin. colchici, f.ʒj.
Morphiæ sulph., gr. ¼. M.
every night.

And also,

℞. Plumbi acet., ʒij.
Opii pulv., ʒij. M.

S. Add a gallon of water, and apply by flannel cloths.

21st. There is less discharge, swelling and pain. He sleeps wells at night. Placed the arm on a splint, and ordered the treatment to be continued.

Ununited Fracture—Tibia.

Dec. 14th. David K., æt. 21. On July 5th, both bones of the left leg were broken at the middle, by being run over by a wagon. The fracture was evidently obliquely downward and forward, and with sharp edges in the tibia, but it was not a compound fracture. The end of the upper fragment is still sharp. The fibula has reunited firmly, but the tibia only by fibrous matter, making a quite movable false joint.

I made two incisions, or rather punctures, on the anterior surface, directly into the fibrous tissues, with a bistoury, and drove into them two ivory pegs.

21st. The pegs have excited some inflammation, but no pain. Applied a straight external splint, reaching up to the thigh.

28th. Still the inflammation is kept up. Removed one peg, which was loose; bandaged the whole leg, which was a little swelled, especially at the ankle, and re-applied the splint.

Jan. 10th. But little inflammation; the other peg removed, and the limb bandaged every day, after continued friction.

21st. Dismissed from the hospital, with considerable union of the fragments.

Tumor—on the Side.

Dec. 18th. Catherine B., æt. 26. Her health is not good, appetite is poor, pulse frequent, tongue coated. She has a tumor on the right side, some four or six inches square, or nearly so, which arose without any assignable cause, five months ago. The tumor is very hard, preternaturally hot, and is the seat of pain, especially on walking, the pain being sharp and lancinating. She sleeps poorly, and when lying on the right side, the tumor feels as if a knife were thrust in it. It is probably an hypertrophy, and union of several of the lower ribs. I purged her, ordered a blister five by five over the spot, and gave her tinct. ferri chlorid. gtt. xx, thrice daily.

28th. She is far better. The swelling and hardness and size are all diminished, and she is also better in health, with better appetite and sleep.

I continued the treatment.

Tumor on the Head.—Hypertrophy of the Bones.

Dec. 18th. Catherine L., æt. 25, has a tumor on the top of her head, a little to the left of the median line, about the centre of the head. It arose about three years ago, without any assignable cause. She has never had any lymphatic glandular swellings, nor syphilitic blotches. The tumor swells up evenly, with a smooth surface, from the bones, and is say as large as a silver dollar, and about three-quarters or one inch high. It has doubled in size within a year. She has no pain in it, but on tapping it there is pain. For a week past headache over the left eye has been troubling her, especially in the morning. Her memory, mind, enjoyment—all her mental faculties are unimpaired. I diagnosticated a probable hypertrophy of the bones, and proposed to use tentatively the following:

℞. Potassii iodidi, gr. x.
Hydrarg. chlor. corros., gr. 1-10. M.
three times daily.

I also purged her, and applied the ointment of the iodide of lead.

Spasm of the Sterno-Cleido Muscle.

Dec. 21st. Mrs. Sarah R., æt. 52, for the last fifteen years has been troubled by the movements of the head. It turns to the left with great and sudden twitching and some slight movements, as in chorea. In using a sewing machine, as she does, to obtain a living, she requires a rest for head, and ordinarily she supports the head by the hand. She is in excellent health, but was formerly poorly. She has some slight pain on the left side of the neck. The sterno-cleido of the right side springs out in contraction, and is evidently the cause. I divided the muscle almost entirely about the middle, taking care of the jugular veins, ext. and int., and also the sternal origin somewhat lower down. The division being effected, she was able to turn the head to the right immediately, and to hold it there also for some time. The cure is almost effected.

28th. The spasm has returned to some extent in the uncut fibres, and there is considerable discoloration by reason of the effused blood. I cut the remaining fibres lower down.

Cartilage formed in the Knee-Joint.

Dec. 28th. Noah C., æt. 20, carpenter. Three years ago his left knee began to pain him greatly, and to swell, without any assignable cause. The swelling was especially great on each side of the patella. One month ago he first felt a movable foreign body in the joint, which would come out on one side or the other of the patella, or stay in behind it, according to circumstances, and sometimes on jumping out to one side of the patella it would throw him down. On examining it the ligamentum patellæ is relaxed, and in extending the leg that bone stands out prominently, so that one can get the finger behind it. There is a foreign substance in the joint as large as an almond, perfectly movable, and slippery as an eel, making it difficult to fix it at any one point. On moving the patella there is grating as of plastic matter. There is no discoloration of the skin, no impairment of the general health, and no constant impairment of motion in the limb.

I made a valvular incision in the skin four inches above the patella, and formed a canal into which I tried to pull the body by bullet forceps, and to force it into it by pressure from behind, but I could only just get it into the beginning of the canal. I then placed a compress behind it to separate it from the knee-joint, and encircled the limb with a bandage all the way from the foot, and secured it on a double inclined plane. I gave him at night—he had no pain in it up to that time—morphia, gr. ½, and he slept well.

31st. He had no pain. I dieted him; left the bandage on, and gave no medicine, and he seemed to be doing well.

Jan. 2d. Opened his bowels by a mild purgative, (magnes. cit.).

18th. Removed the bandage for the first time since the operation, and found the knee-joint in a good condition, without inflammation. The cartilage was at the top of the canal formed in the operation, and somewhat smaller than at first. The limb was bandaged from the foot up, and he was allowed to walk somewhat, with the assistance of crutches.

29th. Discharged much improved; the knee being stronger, with some fluid still in it, and the cartilage still diminishing. Regulated friction was ordered while at home.

(March 20th. I heard from him by letter. Some fluid still left, and the tumor steadily diminishing. He walks with a cane. W. W. K., Jr.)

Medical Societies.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

(Reported by Wm. B. Atkinson, M. D., Recording Secretary.)

Wednesday evening, Sept. 13th, 1865.

SUBJECT FOR DISCUSSION—TYPHUS FEVER.

Dr. D. FRANCIS CONDIE opened the debate by the following remarks:

By the term typhus fever I would designate a fever of a continued type, characterized by a general prostration or torpor of the vital and intellectual functions; a stupid expression of countenance, coma, low muttering delirium, with petechiæ, and all the evidences of a tendency to a dissolution of the blood, or a loss of its plastic power.

In the greater number of cases the onset of the fever is preceded, for a shorter or longer period, by a feeling of soreness or of weariness in the back and limbs; a general sense of uneasiness, great restlessness; a feeling of tightness, weight or oppression at the epigastrium; fatigue after slight exertion; depression or unevenness of spirits; deficient appetite, sometimes nausea; disturbed sleep or wakefulness. The occurrence of the fever is usually marked by a sense of chilliness; an increase of debility, pain, often severe, of the head, back, loins, or lower extremities—or of one or other, or of several of these parts. In a few cases there is nausea, in still fewer, vomiting. This initiatory or premonitory stage may be of but little intensity, and of short duration; or it may be peculiarly severe and protracted; the skin becoming cool and pallid; the features shrunken and anxious; the pulse very feeble and frequent, sometimes irregular, with a general sense of oppression and sinking. Death may occur in this first or initiatory stage, with only a slight ineffectual effort at reaction, or none at all. In general, however, sooner or later, in different cases, alternations of heat and chilliness, several times repeated, are experienced, after which febrile reaction becomes permanently established. We have now the ordinary phenomena of fever, which constantly increases in intensity. The surface of the body is uniformly hot and parched. The heat of the skin, causing in the hand applied to the patient's surface a sense, not merely of heat, but of acridity, of pungency, continuing some minutes after the hand is removed. The calor mordax of the older writers. The pulse is very frequent, feeble, compressible. In the commencement of febrile reaction, in some few cases, the pulse has been known to be full, and hav-

ing an appearance even of strength; it will be found, however, to be without tension or actual strength, and to yield readily to the pressure of the finger. Respiration is very frequent. It is found by auscultation to be feeble and imperfect below the inferior margin of the scapulæ, where there is also detected upon percussion, a certain amount of dulness. The tongue, at first, is usually moist, with a slight coating of a whitish or yellowish-white color. The tongue, however, soon becomes dry, and dark-brown, especially, in a broad streak, along its centre. In some cases the tongue becomes smooth and glossy, while, in others, it assumes an appearance as of raw beef. In most cases there is pain over the brows. The face has a dark-red or dusky hue, which increases in intensity as the disease progresses; in severe cases the face becoming even of a purplish or livid hue. The eyes are injected, and have commonly a turbid, lack-lustre, maudlin expression. The mind is sluggish, torpid, and somewhat confused. Injection of the nares, mouth and fauces is not unfrequent. Occasionally epistaxis occurs. There is a loss of appetite, sometimes nausea; less often vomiting; the bowels are costive, and when stools are procured, these are dark-colored, and for the most part offensive. The urine is generally scanty. In most cases, a very peculiar, disagreeable odor is given off by the body of the patient.

The febrile symptoms have generally an exacerbation toward or during the night, with a remission each morning.

Between the sixth and ninth day of the disease, sometimes a little later, sometimes a little earlier, there appear on different portions of the surface, or diffused over it generally, spots, varying in size, from a mere speck to even half of an inch in diameter; of a dark-red color, level with the surface of the skin, and only partially, or not all disappearing upon pressure. They are true petechiæ, and acquire often, especially in severe cases, a violet, purplish, or even black hue. In some, but very rare cases, petechiæ are absent, or only few in number. They have been known to fade or disappear entirely for a period, and then to re-appear as before. Sudamina are often present, even in cases in which petechiæ are few in number, or entirely absent. In many cases the entire surface of the patient becomes, in the course of the disease, exquisitively sensitive; the slightest touch is productive of suffering, and causes the patient to shrink on any one's approach, in apprehension of its renewal. The other symptoms most commonly present at this stage of the disease, are dizziness, confusion of vision, ringing or humming in the ears, with dulness of hearing. There is increased stupor, an apathy of countenance and demeanor; there are occasionally paroxysms of mild—low muttering—transient, or continued delirium, sleeplessness, or disturbed sleep; occasionally there is jactitation, with twitchings of the muscles; most commonly an accumulation of dark-colored sordes takes place about the tongue, gums, teeth, and lips. In some cases discharges of dark-colored blood occur from the bowels. The prostration and helplessness now augment; there is a disposition to faint on the slightest exertion, or even actual syncope occurs; there is often a feeling of intense oppression at the chest, as though suffocation were imminent.

The foregoing symptoms, or a majority of them—more or less strongly marked, constitute what has been termed the second stage of typhus fever, which commonly lasts from five to seven days, or thereabouts. Should no favorable crisis occur, the final stage—that of collapse—ensues.

The patient, in this stage, lies upon his back in a half comatose condition; his eyes partially closed, his mouth open, and from utter prostration, he is found constantly to slide downward toward the foot of the bed. The state of partial coma is sometimes attended with low muttering delirium. There is generally subsultus tendinum, picking at the bed clothes, muscæ volitantes, etc. The patient is now, to a great extent, insensible, or indifferent to external impressions. In some cases there take place spasms of the muscles, almost convulsive in character. Hiccough is not unfrequently present; it is sometimes very violent, and almost continuous. The pupil is either dilated or contracted, or alternately the one and the other. The tongue is usually parched, contracted in breadth, and dark-colored. The entire mouth is loaded with dark-colored sordes; the breath is offensive, deglutition is difficult: occasionally involuntary discharges take place from the bowels. There is, in some cases, suppression of urine. Great insensibility of the surface ensues, with coldness of the extremities, paleness of the skin, and collapse of the features. The respiration and circulation become slower and slower, and finally cease. In a few cases, death is preceded by convulsions.

The indications of a favorable tendency in the disease, during the second stage, are a diminution in the frequency of the pulse, a relaxation of surface; moistening and cleaning of the tongue; fading or disappearance of petechiæ; disposition to natural, refreshing sleep, etc. There not unfrequently occurs early in the second stage, a

copious perspiration, or an increased flow of urine, which is sometimes followed speedily by a marked amelioration in all the prominent symptoms of disease and the settling in of convalescence. At a later period, when recovery takes place, it is very slowly, as the extreme debility of the patient gradually gives way, under the influence of a properly selected and judiciously administered tonic and sustaining treatment. The convalescence from typhus fever, in the great majority of cases, is slow, tedious. It is only by degrees that the various organs resume their normal functions; relapses are extremely rare; the final restoration to health is almost always complete; the patient being left also with a greatly diminished liability to any future attack of the fever. Typhus fever usually runs a protracted course—from 21, 28, 35 to 40 days. In very violent attacks, however, a fatal termination may occur within the first twenty-four hours, previously to the stage of reaction setting in, or, as is frequently the case, death may occur by the fifth or sixth day; more commonly, however, the fatal event occurs between the ninth and twelfth days. In very mild cases, the disease may terminate favorably from the 7th to the 12th, or 14th days; but in other cases, not until after the 21st or 28th day, or even later. In some very malignant cases, collapse has been known to set in early, attended by a marked tendency to dissolution of the blood, indicated by passive hemorrhages, large petechiæ, or vibices of a dark, livid, or purplish hue; fetid breath, disposition to the formation of gangrenous eschars from slight injuries; extreme prostration of strength; small fluttering pulse, etc.

We have thus given a general outline of the more prominent symptoms and usual course of typhus fever. In both its symptoms and course, however, it may, to a certain extent, be modified by the intercurrence of other diseases, or by the presence of some malady in the individual when attacked by the fever. The most common of the diseases which are liable to complicate typhus fever, are catarrh, pneumonia, diarrhœa, dysentery, erysipelas, typhoid, remittent, and other fevers. While these intercurrent affections produce a modification in the phenomena and march of typhus fever, the latter, in its turn, produces a similar influence upon the affections accidentally associated with it. In typhus fever, there are to be met with after death, no lesion or set of lesions characteristic of the disease, if we except perhaps the dissolved state of the blood which is present in all protracted cases, and the bloody infiltrations so generally associated with it. The blood has the appearance of a very dark syrup. It is little inclined to coagulate, or if coagulæ do occur, they are soft, spongy, exhibiting in some cases the presence of oil globules. There is very generally present venous congestion of the brain and its meninges, with some effusion of serum, often colored with dissolved blood, into the ventricles and beneath the arachnoid. A reddening of the mucous membrane of the nares, fauces, and respiratory tubes is very frequently present. The posterior lower portions of the lungs are often solidified, dark in color, fragile, and impervious to the air. The gastro-enteric mucous membrane is in many cases reddened and softened; sometimes it is mammelonated. The spleen is frequently softened, sometimes enlarged. The liver is also occasionally softened and engorged with blood. Softening of the heart is also sometimes met with. Whenever indications of inflammation occur in any of the organs or tissues, it is invariably an evidence of the complication of the typhus fever with other diseases.

By what is typhus fever produced? A careful collation of the mass of well authenticated facts we possess in relation to the circumstances under which the disease usually occurs, will warrant us, we think, in answering the question just propounded by the declaration that in all cases, typhus fever is produced by a peculiar poison, generated when a number of human beings, especially diseased individuals, are crowded together in small, illy ventilated apartments, with no, or very little attention being paid to personal or domestic cleanliness. We may enumerate as among the most active predisposing agencies, bad or insufficient food, bad water, residence in a damp, malarial locality, the depressing passions generally, over-fatigue, excesses of every kind, cold, etc. etc.

Typhus fever is essentially an endemic; its occurrence is due to a poison dependent on local causes for its production. Destroy the local causes, and there is no longer any of the typhus poison produced; consequently, the possibility of the occurrence of typhus fever is prevented. We read, however, of epidemics of typhus fever. As an epidemic, properly speaking, we do not believe that typhus fever ever prevails. Wide-spread occurrences of typhus fever, with little regard to technical accuracy, have been set down as typhus epidemics. Upon examination, it will be found that such visitations do not depend upon any inscrutable morbific constitution of the atmosphere, but can everywhere be traced to the wide-spread existence of local causes, sufficient to the production of the typhus poison. A certain epidemic influence may, nevertheless, act as an exciting cause of typhus fever: principally,

we suspect, by increasing the power, or calling into action an amount of existing poison too small or inactive, under all ordinary circumstances, to produce the disease.

Typhus fever is unquestionably propagated by infection, that is to say, a poison existing in the air, either at the spot where the poison was generated, or conveyed to a distance, either in infected clothing or in other fomites.

The distinction between infection and contagion is positive and well defined. Contagion is always a direct product of disease, whereas infection may be generated altogether independent of the presence of any kind, degree, or form of disease. Instances may be adduced where typhus fever has been communicated to persons in health, beyond the place in which the disease was generated, by persons coming out of the infected atmosphere, and who were not themselves at the time laboring under the disease. We adduce, as striking instances of this portation of an infectious poison, the circumstances of the communication of typhus fever to the bench and bar at the Oxford Assizes, 1577, and the well known facts that emigrants, not themselves sick, from on board of crowded, filthy, and ill-found vessels, have communicated the fever to those in whose vicinity they came to reside, after landing. Bodies of troops, not laboring under fever, from crowded, filthy, and badly located camps, barracks, and hospitals, have not unfrequently introduced typhus fever into the camps or garrisons, or on board the transport vessels, to which they have been admitted. This portation of an infectious disease will the more certainly take place when the infected are brought into the midst of crowds, and still more so, if the crowded populations they come among are in situations and conditions of a bad sanitary character.

Typhus fever may prevail at all seasons of the year; with us, it is chiefly in winter that it is encountered. This is due to two causes: First, the depressing effect of the cold, and the privations, to the influence of which the poor at this season are subjected; and second, the closing up of the houses to keep out as far as possible, the external cold air, and the huddling together of the inmates in small apartments for the sake of warmth. The first of these causes predisposing the system to the action of the typhus poison, the second facilitating the generation of the poison, and augmenting its virulence.

All ages and both sexes, when equally exposed to the same morbific causes, predisposing and causative, are liable to an attack of typhus fever. The disease, however, is less apt to become developed in infants than in persons of middle and advanced ages. The negro is said to be more liable to the disease than the white. The statement, however, is of doubtful authority.

There would seem to elapse between the time of exposure to the typhus poison and the development of the fever a period of incubation, of from seven to fifteen days. When the poison is strongly developed, in close, filthy, and crowded apartments, in unhealthy neighborhoods, in such as are exposed to its influence, especially if they be particularly predisposed to the action of the poison, the occurrence of the fever is almost immediate, or even death may occur quickly before the appearance of the febrile stage.

What is the nature of typhus fever? If the name blood-disease can, with propriety, be applied to any malady, it most unquestionably can be to typhus fever. An abnormal condition of the blood is almost the only constant lesion detected after death. By the action of the typhus poison, the blood becomes deprived of a part of its vitality, of its plasticity, of its adaptability to stimulate the nervous centres to a healthy performance of their functions. It has been made a question whether the typhous poison acts immediately upon the organic nerves, and by disturbing their action, prevents the formation of healthy blood, endowed with an adequate vitality for the purposes of nutrition and nervous stimulation, or by the poison being absorbed, and becoming mixed with the blood, the healthful properties of the latter are impaired, and by the action upon the nerves of the blood thus vit ated, their normal actions are disturbed, and hæmatosis and nutrition being, in consequence, imperfectly performed, an increased dyscrasis of the blood ensues. Which of these two theories is the most correct, we shall not stop to inquire. The typhoid poison may, it is probable, act in both ways, in some cases. The question is one, however, of little importance. The great fact to be kept in view, is that in every case of typhus fever, we have the most conclusive evidence of a vitiated condition of the blood, and of a derangement of the nervous functions, consisting rather in their depression than in their excitement. These two lesions are sufficient to account for the production of all the symptoms pathognomonic of typhus fever. The evidence which occasionally presents itself in the course of the disease, of the presence of a low form or grade of inflammation, does not in the least invalidate the views we have advanced in relation to the nature of typhus fever. Such inflammation, when it occurs, forms

no essential part of the fever, it is in all cases an accidental complication of the typhus affection.

The prognosis, favorable or unfavorable, in typhus fever, depends in a great measure upon the degree of violence of the symptoms of each case, upon the age and rigor of the patient, his freedom from or tendency to disease, his exemption from any depressing agents, from malaria or infection. A mild attack, youth or middle age, a robust constitution, one that has not been impaired by deficient or bad diet, excessive or intense grief, dissipation, over-fatigue, exposure to foul air, previous disease, etc., are the conditions for a favorable prognosis. The most important circumstance, however, upon which is to be based a hope for the patient's recovery, is the possibility of his prompt removal from the infected atmosphere in which his disease was generated, to a pure healthy locality. Upon such removal, a cure has ensued in cases of typhus fever of a most unpromising character, while without such removal a cure can scarcely be anticipated in even the mildest cases.

We have not time upon the present occasion to enter upon the therapeutical management of typhus fever. The indications are: 1st, to remove the patient from the infected atmosphere in which the disease was contracted, into a pure atmosphere, free from dampness, and of a convenient temperature. This is all important; without it is fulfilled, little hope of recovery need be entertained.

2d. Clean and sufficient clothing. In the earlier stages of the attack, and when the patient's extreme debility does not forbid it, immersion in a warm bath, and a thorough washing of the surface of the body with soap, will be a very judicious measure that will be always followed by good.

3d. To sustain the patient's strength by stimulating, tonic, and sustaining remedies, such as wine, brandy, spirits; such diet as the stomach of the patient will sustain; quinia, ammonia, ether, camphor, serpentaria, etc., administered in doses and intervals adapted to the exigencies of each case.

4th. To reduce the intense heat of the skin, and promote as far as possible a gentle diaphoresis, by sponging the skin with warm water, warm vinegar and water, camphorated vinegar, warm spirits and water, or camphorated spirits, with the administration, internally, of acetate of potassa, or of ammonia, etc.

5th. The combatting of intercurrent symptoms by appropriate remedies, always keeping in mind, however, that the debility under which the patient labors, forbids the use of any remedy which has a tendency still further to reduce his strength.

(*Discussion next week.*)

Editorial Department.

Periscope.

Case of Fracture of the Larynx.

An instance of this very rare accident is related by Prof. Donald Maclean, of Queen's University, Kingston, in the last number of the *Canada Medical Journal:*

A farmer, 32 years of age, while running after a dog, and in the act of throwing a stick at it, tripped and fell forward, striking his neck with great violence against a stump, the height of which was sufficient to prevent his hands from reaching the ground. Making a strong effort, he sprang to his feet and attempted to recover his breath, but he found it impossible to take a full inspiration. On putting his hand to his throat, he discovered that it was much swollen, and that the swelling was extending rapidly upward, over the face and back of the head. At the same time, blood began to flow very freely from his mouth.

On examination by Prof. Maclean, twelve hours after the accident, the thyroid cartilage was found fractured, pomum Adami absent, and crepitus distinct over and above the crepitation of the emphysema, and by pressing on the left ala of the thyroid cartilage, respiration was entirely arrested, and acute pain felt. The attempt to restore the thyroid cartilage to its natural position and form met with but partial success. A bandage was applied firmly around the neck, with the effect of facilitating respiration to some extent, and enemata were ordered, first laxative, and afterward nutritive.

On the third day, Prof. Maclean saw the patient again, much worse, respiration labored and painful, pulse small and irregular, countenance intensely anxious and haggard; had had no sleep since the accident, nor attempted to swallow anything since last visit. Cold clammy sweat. On making the attempt, deglutition was performed with comparative ease; consequently, a mixture of brandy and milk was freely administered, which was followed by rapid improvement. The patient was then removed to Kingston, (June 18th.)

June 19th and 20th, (Tuesday,) a good deal of sleeplessness, otherwise everything going on well. On Tuesday night, he became restless and anxious, difficulty of breathing, and pain in neighborhood of larynx. Walked about the room nearly the whole night, and at daylight on Wednesday morning became suddenly much alarmed by the rapidly increasing dyspnœa. Expressed his conviction that he would live but a few hours.

At 8 P. M., Wednesday, the dyspnœa had become so severe that asphyxia was threatening. Dr. Dickson had become associated with Prof

Maclean in the case. At last a satisfactory view of the fauces and upper part of windpipe were obtained, and the glottis found all but occluded by œdema.

Tracheotomy was at once performed, and saved the patient. The tracheotomy tube was removed on June 29th, and the wound stitched up. He soon commenced to work on his farm, in perfect health.

"Fracture of the cartilages of the larynx is," Prof. Maclean concludes, "extremely rare, still a few well authenticated cases have been recorded by MM. Soddy, Oliver, Marjolin, Plenck, Morgagni, Remer, and Dr. Frank H. Hamilton. In all these cases, the effects of the injury were either so slight as to require no surgical interference, or else so serious as to be fatal. Dr. Hamilton's case is, so far as I am aware, the only one in which tracheotomy was performed; in this and in several other respects, the most striking resemblance will be observed between that case and the one I have just described.

"The principal difference between the two cases consist in the fact that Dr. Hamilton's case died of exhaustion, seventy-two hours after the accident, and thirty-four hours after the operation."

L.

Arsenic.

The *Abeille Médicale* contains an interesting article on the medical appliances of this deadly poison. The author, Dr. Papillon, of Saujon, Charante-Inferieure, maintains, in allusion to a paper by Dr. Wahn, addressed to the Academy of Medicine and advocating the same views, that arsenic, instead of being a debilitating drug, is on the contrary a strengthener, and one of the best remedies in case of cachexy in marshy districts, king's evil, lymphatism, chlorosis, and even consumption.

Against this opinion there is an experiment of Dr. Briquet's, which consists in measuring the pressure of arterial blood after an arsenical injection into the veins. As the pressure appears to diminish, Dr. Briquet infers therefrom that arsenic exercises a depressing influence on the animal economy. But to this our author replies that any drug whatever, even iron, the greatest strengthener known, will cause weakness, and even death when so misapplied against the laws of nature. On the other hand, he contends that he has seen pale, sallow, weak, and thin patients use iron, vegetable tonics, and cod liver oil for months and years without the slightest benefit; and those same patients acquire appetite, strength, flesh, and a healthy complexion on taking daily doses of a few milligrams of arsenic. He denies that arsenic may momentarily act as a stimulant, though when absorbed it ultimately debilitates: and declares that he has caused arsenic to be taken daily for years together, and always found it induce regularity in the nutritive functions.

He adds that he has himself, for the last five or six years, been taking a daily dose of two milligrams of arseniate of antimony, and that to this practice he not only attributes the cessation of palpitations of the heart with which he was afflicted, and which prevented his sleeping on his left side, but also a considerable improvement in his general health, and the disapearance of violent headaches which he used to have once a week for twenty-four hours at a time. Dr. Devergie, he further observes, has admitted the tonic qualities of arsenic, but only in the beginning: a continual use of this remedy, according to this practitioner, induces debility. To this Dr. Papillon replies that arsenic is generally administered under the form of Fowler's drops, or of Asiatic pills, with variable proportions of arsenious acid, the doses increasing progressively. In this way the body gradually receives more arsenic than is necessary, and it then of course acts like every other tonic, which by excess loses its strengthening power, and becomes debilitating; but the dose of two milligrams may be continued with impunity for any number of years without any other effect but that of stimulating and renovating the vital powers.

The Non-Transmission of Syphilis by Vaccination,

Is the title of a paper by Professor W. Borck of Christiana, a translation of which was read at the late meeting of the British Medical Association. The following outline of it we find in the *British Medical Journal.*

In it the author stated that he had most carefully examined the question, whether syphilis could be transmitted by vaccination; and had been unable to find any evidence in favor of such transmission either in published records or from experiments performed by himself. He related instances in which he had vaccinated syphilitic children, and had endeavored, but without producing any result, to inoculate with the matter obtained from them two patients suffering from elephantiasis. He considered that no doubt should be thrown on vaccination unless on the most convincing evidence; and, while he did not deny that syphilis might be transmitted by vaccine matter, he must withhold his belief that such an event could occur until he saw it. The facilities for observation were great in Norway; but the transmission of syphilis by vaccination had never there been observed.

Bee-Bread as a Diuretic.

Dr. James S. Whitmire of Metamora, Ill., gives, in the *Chicago Med. Examiner*, his experience with bee-bread as a diuretic. He selected some of the oldest comb, containing the greatest quantity of the bread, and separated it from the honey and comb; abstaining a week from honey and with the renal secretion in a normal state, he partook of the bread without the honey to the extent of ℥j., three times per day, continuing the experiment for a week. The amount of urine voided was from four to six fluid pounds per day, the difference being the greatest when exercising out-doors. When remaining quiet, in a warm office, there was from one to one and a half pounds less secretion than when exercising. In children the same effect was produced. The only disagreeable symptoms, following the use of the article, are a slight degree of flatulency, or a looseness of the bowels. It is entirely palatable, inoffensive to the stomach, producing neither irritation nor nausea of that organ.

L.

Reviews and Book Notices.

A Treatise on the Insect Enemies of Fruit and Fruit Trees, with numerous illustrations, drawn from nature, by HOCHSTEIN, under the immediate supervision of the author. By ISAAC P. TRIMBLE, M. D., Entomologist of the Agricultural Society of New Jersey. The Curculio and Apple-Moth. Pp. 150, etc. New York, W. Wood & Co.; and A. Williams & Co., Boston. 1865.

Our readers will excuse a somewhat lengthy critical notice of this work, which strictly does not come within the scope of medicine. But, so important is the subject of fruit-growing, and so beneficial or injurious to the general comfort, and we may say *health* of the people, are the results of either an abundant or a poor supply of fruit, that we may consider time well employed in the endeavor to spread knowledge, which will, if it finds practical application, tend to larger crops of fruit. Again, thousands of our professional readers are cultivators of fruit to a larger or less extent, while all are often consulted by their friends and patients regarding the best methods of combatting its enemies; and they will find no fault if we bring to their notice a work which tells all about the matter.

This work has to us additional claims of consideration, because it is written by a physician, and from beginning to end is entirely original. It is not often, indeed, that a book so exhaustive of its subject, is at the same time so completely founded on the author's own observation, and so little dependent upon the labors of others.

Dr. TRIMBLE has observed, studied, and experimented on the insect enemies of fruit for many years; and he now gives us the results of his vast research, just as we should expect from a disciple of medicine, in a simple and clear manner, and by the method of demonstration. By means of the beautiful colored lithographs, we are made acquainted with the injurious insects themselves, their various stages of development and growth, and then we walk pleasantly by the side of the author through the green fields, over the meadows and into the orchards, studying their habits, and finally, the pathological effects which result to fruit from the attacks of its insect enemies; and lastly, we learn how to remedy the *evil*, and counteract the labors of the curculio and the apple-moth, the two insects to which the present volume is mainly devoted.

In addition to the great value of the work as a scientific and clear monograph, its style and manner are equally attractive. Indeed, one who is no further interested in fruit, than in the eating of it, would find pleasure in its perusal. There is a good deal of genial humor in the author, which crops out on nearly every page, and harmonizes well with the budding apple-trees, and peach-blossoms that surround the subject.

One of the most interesting parts of the book is that which treats of the various futile remedies which credulence has brought forward to overcome these injurious insects. Here the author says:

"As the science of surgery emerged from the deep darkness of the early ages, an eminent physician wrote: 'Millions have died of medicable wounds.' It might now be written that hundreds of millions have died from nostrums prepared by men who knew little of medicine, and still less of the human system.

"Of all our insect enemies none have had so many remedies proposed for their extermination as the curculio. For twenty years I have been making collections of these, and I cannot imagine anything of less value, unless it should be a similar collection of quack remedies for consumption or rheumatism."

This part of the book the author concludes as follows:

"About ten or fifteen years ago there was great activity in the search for a curculio remedy, chiefly with the idea of finding something available in connection with the supposed instincts of the insect. We had the paving, planting over water, powerful smells, and heaps of manure; but all these, as well as the various mixtures for coating the young fruit, are now abandoned. The agricultural papers seldom speak of any of them, and few new ones are proposed. The destruction of the grub in the young fruit, and the jarring process for killing the beetle during the season of mischief, are all that have survived; and so little is now said of these, that most people have settled down into the belief that nectarines, apricots, and even plums, are to be given up. They say if these fruits could be had without trouble, they would be very nice; but they can do without them. They are people who, if they find it troublesome to raise wheat, will live on rye or corn bread. But now, since the signs of the times indicate so plainly that even apples must soon be given up also, unless we make fight against the insect enemies, perhaps the public will be aroused to a sense of danger. I hope all who have followed me through this chapter on remedies, will resolutely determine that the question, as to their usefulness, is no longer an open one; that they at least are not to be depended upon; that the fight hereafter is to directed to the killing of this insect, either as grub or beetle; that everything short of that may as well be given up first as last."

In illustration of the manner in which the curculio performs his injurious work, we quote from the diary of observations embodied in the book. The passage may also be considered an example of the descriptive style of the author.

"The curculios caught yesterday, May 20th,

1864, on the cherry knots, were taken to Mr. Hochstein to-day, that he might have an opportunity of catching the positions they assume when cutting the crescent, depositing the egg, and then securing it in the place so carefully prepared for it. Two apricots were given them, and in less than a minute they were all on those apricots, and the females were making the crescent-shaped marks instantly—two on one, three on the other. The males attached themselves to the stems, where they seemed to be feeding. Some of their attitudes were very amusing," etc.

"The time consumed by the female in cutting the crescent in fruit so young as it is now, is very short, not more than two minutes; but the making of the cavity in which the egg is to be stowed away, is a much more tedious operation. I waited half an hour, and none of them had finished. Many times for years past, when not so hurried as now, I have patiently watched the whole process. It is one of the exemplifications of insect instinct. The curculio works and works at this little cave, leading from the middle of the concave side of the cut in the skin of the fruit, until it attains the proper size, for the easy passage of her thin-skinned and delicate egg: and at the further end of that cave or passage-way she will carefully prepare the chamber for its resting place, larger than the passage-way, and with the adjacent pulp of the fruit so deadened that the egg will not be dangerously pressed by subsequent growth. This done, she withdraws the proboscis, or operating instrument, turns around, and drops an egg at the mouth of the cave; then turns again, and carefully pushes it to its destined place, using her proboscis for the purpose, and assuming the same position as when making the opening. If those who have seen the common woodcock boring in the soft ground for food, will carefully watch this operation of the little curculio, they will be struck with the similarity of the positions of the two. But all is not yet finished. This crescent-shaped cut in the skin of the fruit is now carefully plastered up with a gummy deposit, of which she seems always to have the requisite supply; probably a necessary protection to prevent the separating of the wound and the consequent exposure of the egg. It is an instinctive operation, and of course necessary and invariable."

The second part of the work treats of the *apple-moth*, commonly called the apple-worm. Like other moths and butterflies, this insect must have an appropriate nidus for her young, which she finds in apples, pears or quinces, and how sadly fruit is damaged by the apple-worm need not be told. More than one-half, sometimes nearly the whole, of a crop is destroyed by this little enemy; and the present season has been worse than ever before, as a visit to the orchards or markets of the country will painfully show.

The winter habitation of a large number of the larvæ of the apple-moth is under the scales of the bark of trees, from which the moth emerges at the proper time to begin the work of depositing her eggs in the fruit. Indeed, during eight or nine months of the year the insect remains in its pupa state of torpor. Its destruction in that period is important, and here nature has appointed a sort of police system, by which the too abundant multiplication of the insect is prevented. There are many birds that prey upon these larvæ; the author has made it a study to determine satisfactorily which birds are thus aiding man in destroying the curculio and apple-moth—and most interesting and fascinating indeed is his account of the manner in which this natural instinct of the birds finds its application. To determine on which of these insects some of the birds live, the author has resorted to post-mortem examination of their digestive organs. He says:

"The killing of so many birds has been a most repugnant task; but I have nerved myself to it in the cause of science. I felt there was a want of such information, and once procured, it could not be wanted again. The comparatively few thus sacrificed, would become martyrs for the good of the many. Many of these investigations have been of surprising interest, from the consciousness that such knowledge, if properly disseminated, would create a public sentiment even stronger than law, for the protection of the birds."

Of these birds, the *Downy Woodpecker*, or *Sap-sucker*, is the most active in the finding and destroying of the larvæ of the apple-moth. A somewhat lengthy extract from the Doctor's diary, dated Nov. 10, 11, and 12, will be interesting:

"During an excursion in the upper part of Morris county, N. J., made for the purpose of investigating the insects and birds, I had an opportunity of seeing a downy woodpecker in an old orchard, and passed an hour watching his actions. His creeping power is wonderful. I was especially interested to see with what speed he could move down the body of a tree backward. This seemed even more rapid than the forward motion.

"Here I was gratified in being able to ascertain how he finds where to peck through the scales of bark, so as to be sure to hit the apple-worm that is so snugly concealed beneath. The sense of smell will not account for it. Such an acuteness of one of the senses would be beyond the imagination. Instinct, that incomprehensible something, might be called in to explain to those who are satisfied to have wonders accounted for by means that are in fact only confessions of ignorance. Birds have instincts undoubtedly—so have we; but they are mixed up confusedly with other faculties. Most of the actions of insects are purely instinctive and utterly unaccountable. But the apple-moth is not a native of this country—the downy woodpecker is. The bird would not have been created with a special instinct to find the larvæ of a moth that did not

exist in the same country. Other insects live under these scales of rough bark, but in very numerous examinations, I have not seen such a hole made, except when leading directly into the cocoon of this particular caterpillar.

"This little bird finds the concealed larvæ under the bark, not from any noise the insect makes; it is not a grub of a beetle having a boring habit, and liable to make a noise that might betray its retreat in seasons of the year when not torpid. A caterpillar makes scarcely an appreciable noise, even when spinning its cocoon, and when that is finished, it rests as quietly within as an Egyptian mummy in its sarcophagus.

"There is no evidence that the downy woodpecker ever makes a mistake; it has some way of judging. The squirrel does not waste its time in cracking an empty nut. There is no reason to believe that this bird ever makes holes through these scales merely for pastime, or for any other purpose except for food. He knows before he begins, that if he works through just in that spot, he will find a dainty morsel at the bottom of it, as delicious to him as the meat of the nut is to the squirrel.

"But how does he know? By *sounding*—tap, tap, tap, just as the physician learns the condition of the lungs of his patient by what he calls percussion. The bird uses his beak, generally three times in quick succession—sometimes oftener; then tries another. Watch him. See how ever and anon he will stop in his quick motions up and down, and give a few taps upon the suspected scale, and then test another, and another, until the right sound is communicated to that wonderful ear.

"Here is evidence enough of the usefulness of this bird to entitle him to exemption papers for ever. Reader, look carefully at the head, as represented in Fig. 7, of this plate. Do not call that bird "Sapsucker." That name will create a prejudice with some. The whole tribe of woodpeckers labor under a prejudice in some neighborhoods. Some will eat cherries, and some are supposed to be fond of grapes. But the chief food of all of them is insects, and many of those insects are our worst enemies. It will be well to let all the woodpeckers have their own way, but by all means protect the Downy."

Want of space prevents our making extensive extracts from this charming book. We cannot refrain, however, from giving one more from the introduction, to show the author's object.

"The object of the author has been to meet the wants of the practical man, who has but little time for the study of any subject except his business, and least of all, a science involving, as entomology does, hundreds of thousands of species. To make such a work intelligible, *illustrations addressed to the eye are a necessity*. The fruit-grower should be able to identify his insect enemy positively when he sees it—there should be no guessing. The curculio and lady-bug, for instance, are both beetles; both are found upon the same trees; they will often fall down together, when those trees are jarred. The one is our worst enemy, and the other one of our best friends. I have known people kill the friend, and overlook the enemy.

"I have been studying these enemies for many years. At first, it was an investigation made necessary for the protection of my own crops; and that experience taught me knowledge that I had not been able to find either in books or cabinets. The interest thus excited, has been increased by the reading of such valuable works as those of Kirby and Spence, Huber, Latreille, Say, Harris, Fitch, and many others. From this reading and personal experience, I am satisfied that the interests of fruit-growers would be promoted, if all the practical knowledge on this subject could be gathered into a separate work, and I have felt that it was a duty to make a beginning by contributing my portion toward a better understanding af this difficult subject."

Regarding the remedies proposed by Dr. TRIMBLE to destroy these injurious insects, they are both rational, simple, and thorough, of which we have thoroughly convinced ourselves. On one apple tree, to which the hay-rope was applied, we have seen two hundred and forty apple-moths captured and destroyed, protecting the tree perfectly against the mischief the next year.

This will be a text-book for the fruit-growers; to be carefully studied in the winter, and by appealing to the plates and the diary, he will find when and where, at any time, to recognize his enemy, and to be ready for him at the right time with the right measures. L.

The Use of the Laryngoscope in Diseases of the Throat. With an Appendix on Rhinoscopy. By MORELL MCKENZIE, M. D. London: M. R. C. P. *Price* $2.

Commencing with the history of the invention of the Laryngoscope, this work gives a description of the instrument and its appurtenances; the principles of the art of Laryngoscopy; the healthy Larynx as seen with the Laryngoscope, Auto-Laryngoscopy, Recipro-Laryngoscopy, Infra-Glottic-Laryngoscopy, etc., etc. Then follows the mode of application of remedies to the Larynx with the aid of the Laryngoscope, operations on the Larynx, the manipulation of Laryngeal instruments, etc. etc. The appendix is devoted to an exceedingly interesting and instructive article on Rhinoscopy.

Much valuable information is to be derived from this excellent work; and so far as we are aware, no work on the subject contains so much in so small compass. It deserves a place in the library of every intelligent reading physician.

The work is gotten up in admirable style, printed on the best of paper, and well illustrated. The publishers are Lindsay & Blakiston of this city.

MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, OCTOBER 14, 1865.

"FREE SCHOOLS" OF MEDICINE?

The less the expense, of course, with which instruction can be given, and the more freely knowledge is disseminated gratuitously, the better. We would not object to see the halls of *all* our colleges thrown open free of expense to all who might pass an examination giving evidence of a sufficient preliminary education.

We must, however, at the present time, when the period of universal free instruction in medicine has evidently not yet arrived, protest against a growing spirit of pecuniary rivalry between the schools;—and a sort of "*underbidding*" in the fees, with no other apparent object than that of rivals in any kind of business,—to catch customers.

The subject has been called up by the receipt of the following circular:

"Miami Medical College of Cincinnati. Supplementary Circular.—In view of the fact that several neighboring Medical Schools have announced a rate of *Fees* for the Course of Instruction, for the coming winter, at a point almost nominal, the Trustees and Faculty of the Miami Medical College of Cincinnati have therefore determined to make no charge for lectures; and to place the Fees of this School at a rate calculated merely to pay expenses."

We suppose that this circular is directed mainly at the Medical Department of the University of Michigan, where the rates are merely nominal.

We do not believe in this matter of merely paying expenses. Expenses can be reduced to a degree which will prevent instruction from being what it should be. Lectures in medicine cannot be had for the mere matter of a room, benches, and a lecturer. They must be demonstrative, and in nearly every branch of medicine the material for demonstration is so expensive, that even in our most frequented medical schools we doubt if the mere matriculation and demonstrator's fee would pay for the ordinary expenses of the school, not taking in consideration the extra expenses of demonstrative teaching in chemistry, physiology, anatomy, etc.

Again, it is establishing a very bad principle in medicine, as everywhere else—to *work* without *pay*. If this principle is established, it will force some of the ablest and most successful *teachers* to abandon their calling, because they cannot afford to spend their time gratuitously, and must make room for some much inferior men, who happen to be possessed of sufficient wealth to make work for pay no object to them.

Lastly, if you establish the principle of underbidding in *teaching* medicine, why not in *practising* it?

We hope that no more colleges will follow the example of the *Miami*, until the matter has been settled in a Convention of all the Colleges, and a definite rate of fees determined upon.

THE WORTHLESSNESS OF MORTALITY STATISTICS OF OUR CITIES.

The unreliability of the mortality statistics furnished by many of the large cities where such reports are made, has frequently been a matter of comment. It arises chiefly from the want of a uniform nomenclature, from carelessness of physicians in reporting, from the ignorance of quacks, whose knowledge of diagnosis is no better than that of any non-professional man, and the carelessness of the Health Officer or Clerk, who issues permits of burial on doubtful certificates.

Prof. N. S. Davis, of Chicago, in a "Report on the Sanitary Condition of Chicago, and the Prevalence of Diseases, from April 1st to August 1st, 1865," alludes to this subject in the following words:

"It is probable that the gross mortality for each month is given correctly, as well as the mortality during the several periods of life; but the statement of the *causes of death* is wholly unreliable, and much of it unintelligible. Thus, in the table for July, we have assigned as *causes* of deaths, the following: cold 1, cramps 35, childbirth 6, dropsy 8, liver complaint 1, summer complaint 94, spasm, 1, teething 22, tumor 1, etc. Are we to infer that the individual dying from cold, *froze* to death; or did he die from bronchitis, pneumonia, tonsilitis, or something else? Where were the *cramps* that killed 35 of our citizens in one month, and what was the disease that gave rise to them? Did the six who died from childbirth, actually die from obstructions or difficulty in the delivery, or from some one of the diseases incident to confinement? Were the 8 who died from *dropsy* affected with organic disease of the heart, kidneys, liver, ovaries, or what? Then, the 22 victims to teething. Are we to infer that they actually became fatally exhausted from the natural growth of the teeth? If not, what was the real disease from which they died? The 94 cases attributed to *summer-complaint*, were undoubtedly bowel affections; but how many of them were dysentery, how many simple diarrhœa, and how many cholera morbus? The worthlessness of such reports needs no comments to make it apparent."

Notes and Comments.

Visiting Lists.

LINDSAY & BLAKISTON'S Visiting List for 1866 is on our table. Those desiring this work, or Townsend's Hand-Book of Practice, on our commutation terms, will please apply *soon*, that we may have time to stamp the name on them. We understand, too, that the stock is likely to become exhausted before the year expires, as the orders for them are unexpectedly large.

Vaccine Virus.

We have several orders on hand for vaccine virus, which we have been unable to fill, from inability to procure fresh matter. We shall fill them as soon as we receive a supply.

News and Miscellany.

Statistics of Small-Pox.

The *British Medical Journal* quotes from the *Berliner Klinische Wochenschrift* some interesting statistics regarding the epidemic of small-pox in Berlin in 1864. In 1863, there were 1270 cases—223 fatal. In January, 1864, there were 227; in May, 644; in June, 628; in July, 323; in August, 150, falling gradually to 55 in November, and 77 in December. Total, during the year, 3319; of which 617, or 18.5 per cent., died. Of the total cases, 1590 were males, of whom 313 died; and 1729 females, of whom 304 died. As to age, the results were:

	Cases.	Deaths.	Per cent. of deaths.
Under 10 years,	854	356	41 6
From 10 to 20,	310	10	3.1
20 30,	794	47	5.9
30 40,	678	65	9.5
40 50,	433	73	16.8
50 60,	192	52	27.
60 70,	40	13	32.5
70 80,	7	1	14.
80 90,	1	0	

Among children under 15 years, there were 976 cases, of which 360, or 36 per cent., died; among persons above 15, the number of cases was 2343, and of deaths 257, or 10 per cent. Of vaccinated persons, there were 2719, of whom 310, or 11 per cent., died; of the unvaccinated the number was 600, of whom 307, or 51 per cent., died. Among re-vaccinated persons, the number of cases was 168, and of deaths 16, or 9 per cent. From inquiries extending over several months, it was found that when death from small-pox occurred in children said to have been vaccinated, the operation had either not been performed, or had been done unsuccessfully, or only a few days before the attack of small-pox. Not a single death occurred among children who had been properly vaccinated.

From statistics of an epidemic of small-pox in Calcutta, collected by Dr. CHUCKERBUTTY, who was in charge of the hospital at Chitpore, we take the following, also published in the *British Medical Journal:*

From 23d December, 1664, to 13th April, 1865, there were 627 patients, of whom 249, or 39.7 per cent., died. Of these, 188 were European males, of whom 51, or 27 per cent., died; and 23 females, the deaths among whom were 5, or 21.7 per cent. Of natives, there were 317 males, with a mortality of 134, or 42.7 per cent.; and females 99, of whom 59, or 59.5 per cent., died. The per cent. mortality among Europeans was 26.5, and among natives 46.4. As regards age, there were:

	Cases.	Deaths.	Per cent.
Under 5 years,	37	11	26.8
10	30	7	
15	33	2	6.
20	126	48	38.
30	310	142	45.8
40	69	31	44.9
50	15	6	40.
60	6	2	33.3
70	1	0	

As regards vaccination, 354 cases and 185 deaths occurred among the unvaccinated; 12 had been vaccinated twice—none died; 148 had been vaccinated once, of whom 43 died.

Episcopal Hospital.

At a late meeting of the Board of Managers, Dr. EDWARD A. SMITH was elected to fill the vacancy in the medical staff of the Hospital of the Protestant Episcopal Church in this city, occasioned by the resignation of Dr. WM. MAYBURRY.

Appliances for Invalids.

At the recent Fair of the American Institute in New York, Mr. T. MCELROY, of New York, had on exhibition a surgical operating table, which is so contrived as to put the patient in any position that may be required for the most difficult operation. The same inventor had an ingenious invalid bedstead.

FURMAN & WELLS, of Addison, N. Y., exhibited O. P. FURMAN'S patent invalid bedstead; and E. MARX, of New York city, had what he calls a patent patient elevator, for raising sick and disabled persons from their beds with ease and comfort, and placing them in any position nature or convenience may require.

Pension Examining Surgeons.

The following appointments have been recently made:

Ohio.—H. D. BALLARD, Finlay.
Illinois.—HENRY CONKLIN, Bloomington.

Vital Capacity of Giants.

Dr. LEWIS gives, in the *British Medical Journal*, the vital capacity, etc., of the French giant BRICE, in comparison with that of two other giants:

	Height. ft.	in.	Chest girth. inches.	Vital capacity. cubic inches.
Brice,	7	11½	49	530
Freeman,	6	11½	47	434
J. S. G.,	7	3	51	370

The age of BRICE is 25 years; that of J. S. G., 18; FREEMAN'S age not given.

Medical Societies in Canada.

Our neighbors in Canada are active in establishing medical societies. Two have recently been formed,—the "Medico-Chirurgical Society of Montreal," and the "Quebec Medical Society." Dr. George W. Campbell is President of the former, Dr. F. A. H. Lame of the latter.

Accidents to Physicians.

Dr. Prescott, Royal Artillery, at London, C. W., met with a severe accident a few weeks ago. He was out shooting, when his gun burst, shattering his left hand so severely, that it had to be amputated above the wrist.

Dr. J. G. Hall, of Wells, Maine, broke through the scaffold floor of his stable recently, while assisting in unloading some hay, and broke one of his legs.

Records of the Medical Department.

Surgeon-General Barnes has sent a communication to the Secretary of War, setting forth the perilous condition of the records, etc., in the Medical Department, which is situated in a building in no way fire-proof, and by reason of its proximity to wooden buildings, liable at any moment to be burned up. Already the books and papers most valuable in a scientific point of view, and to the families of deceased soldiers, have accumulated so that they occupy the entire story of a very large building. A proposition will be made in Congress immediately upon its organization, to construct fire-proof buildings for the State and War Departments, the latter to include suitable apartments for the Surgeon-General.

A short time since was announced the decease in Paris of Madame Libri, wife of Count Libri, the distinguished bibliographer, who for many years has resided in London. Madame was the daughter of Dr. Double, a distinguished medical man, who refused the peerage offered him by Louis Philippe, that he might devote his whole time to the relief of suffering humanity. She was equally familiar with the French and English language and literature.

MARRIED.

Davenport—Allen.—September 27th, at the residence of the bride's father, by Rev. J. Hussey, Dr. T. Davenport of Cincinnati, and Hannah E., daughter of E. B. Allen, Wyoming, O.

Fundenberg—Cox.—September 20th, by Rev. James Allison, Dr. W. F. Fundenberg and Miss Mary M. Cox, both of Sewickley, Alleghany county, Pa.

Hill—Sturgeon.—On the 14th of September, in North Fayette Township, Alleghany county, Pa., by Rev. John Kerr, Dr. B. F. Hill, late Assistant Surgeon 140th Pa. Vols., and Miss Lizzie J., daughter of the late Major Sturgeon.

Leavitt—Brown.—In Norridgewock, Me., September 19th, by Rev. Benjamin Tappan, Jr., Dr. Wm. B. Leavitt of Athens, Me., and Sarah A. Brown of Norridgewock.

Potts—Gilbert.—On the 3d inst., by the Rev. D. M. Gilbert, assisted by the Rev. Dr. J. A. Seiss, A. Ross Potts, Esq., and Miss Boydanna, daughter of Dr. D. Gilbert, all of this city.

Todd—Dove.—In Washington, D. C., October 3d, by Rev. R. J. Keeling, Rector of Trinity Church, Dr. Seth J. Todd and Georgie, daughter of Dr. G. M. Dove, all of that city.

DIED.

Crosby.—At his residence, in Union Village, N.Y., on Sunday, October 1st, 1865, Dr. J. B. Crosby, aged 52 years.

Dyer.—At Natick, Mass., Sept. 29th, Augustus E. Dyer, M. D., aged 25 years, 7 months.

Graham.—At Shawangunk, Ulster county, N. Y., October 2d, William C. Graham, son of Dr. George G. Graham, in the 42d year of his age.

Gregory.—At Jersey City, October 4th, Kate D., wife of Dr. A. McI. Gregory, and daughter of J. R. Worthington of Cooperstown, N. Y., aged 23 years.

Hill.—In Paris, Washington county, Pa., Sept. 1st, 1865, Addie Diana, daughter of Dr. M. D. and Rachael D. Hill, in the 8th year of her age.

ANSWERS TO CORRESPONDENTS.

Dr. G. C., Danville, Ky.—Pocket Medical Case sent by Express, October 3d.

Dr. S. Y., Auburn, Me.—Skeleton sent by Express, October 2d.

American Medical Association.

In consequence of the expense of the publication of Vol. XVI. (1865) of the Transactions, the Committee of Publication have fixed the price at five dollars ($5). Members who have already paid three dollars ($3), are requested immediately to forward the additional sum, ($2.) As the number of copies published will be but slightly in excess of the number of subscriptions, those who desire copies should immediately forward the amount either to the Treasurer, Dr. C. Wister, 1303 Arch street. or to

Wm. B. Atkinson, Permanent Secretary.
215 Spruce st., Philadelphia.

Sept. 18, 1865.

METEOROLOGY.

October	2,	3,	4,	5,	6,	7,	8.
Wind	N. W.	N. W.	N.	N. W.	N. W.	W.	W.
Weather	Clear.	Clear.	Cl'dy.	Clear.	Clear.	Clear.	Clear.
Depth Rain							
Thermometer.							
Minimum	51°	44°	43°	38°	39°	39°	39°
At 8 A. M.	62	50	50	45	52	57	57
At 12 M.	65	59	55	55	57	64	64
At 3 P. M.	63	59	50	55	57	64	64
Mean	60.25	53.	49.50	48.	51.25	56.	56.
Barometer.							
At 12 M.	29.9	29.9	29.9	29.9	30.2	30.2	30.2

Germantown, Pa. B. J. Lehon.

WANTED.

Subscribers having any of the following numbers to spare, will confer a favor, and likewise be credited on their running subscriptions, with such as they may return us.

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" IX. Nos. 6, 7, 8, 13 & 14, 17 & 18, Nov. 8, 15, 22, '62; Dec. 27, '62, and Jan. 3, '63, Jan. 24 & 31, '63.
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☞ *We are in pressing need just now of a few copies for new subscribers, of* No. 414, Feb. 4, 1865.